Amendments to the Claims

This listing of claims will replace all prior versions and listings of the claims in the application:

What is claimed is:

1. (Currently Amended) A compound of formula (I) or a pharmaceutically acceptable salt thereof:

$$R^1$$
 $(R^2)_n$
 (I)

wherein:

R¹ represents a group of formula (A):

wherein R^{4a} represents C_{1-6} alkyl, oxo, aryl, heteroaryl or heterocyclyl; R^{5a} represents hydrogen, $-C_{1-6}$ alkyl, $-C_{1-6}$ alkyl C_{1-6} alkoxy, $-C_{1-6}$ alkoxycarbonyl, $-C_{3-8}$ cycloalkyl, -aryl, -heterocyclyl, heteroaryl, $-C_{1-6}$ alkyl-aryl, -CH(aryl)(aryl), $-C_{1-6}$ alkyl- C_{3-8} cycloalkyl, $-C_{1-6}$ alkyl-heteroaryl or $-C_{1-6}$ alkyl-heterocyclyl, wherein R^{5a} may be optionally substituted by one or more substituents which may be the same or different, and which are selected from the group consisting of halogen, hydroxy, cyano, nitro, oxo, halo C_{1-6} alkyl, polyhalo C_{1-6} alkyl, halo C_{1-6} alkoxy, polyhalo C_{1-6} alkoxy, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} alkoxy, C_{1-6} alkoxycarbonyl, C_{1-6} alkyl, C_{3-7} cycloalkyl C_{1-6} alkoxy, C_{1-6} alkanoyl, C_{1-6} alkoxycarbonyl, C_{1-6} alkylsulfonyl, C_{1-6} alkylsulfonyl, C_{1-6} alkylsulfonyloxy, C_{1-6} alkylsulfonyl C_{1-6} alkyl, C_{1-6} alkylsulfonyloxy, C_{1-6} alkylor a group $NR^{15a}R^{16a}$, $-CONR^{15a}R^{16a}$, $-NR^{15a}COR^{16a}$, $-NR^{15a}SO_2R^{16a}$ or $-SO_2NR^{15a}R^{16a}$, wherein R^{15a} and R^{16a} independently represent hydrogen, C_{1-6} alkyl, aryl or together with the nitrogen to which they are attached may form a nitrogen containing heterocyclyl group;

m is 1 or 2;

p is 0, 1, 2 or 3, or when p represents 2, said R^{4a} groups may instead form a bridging group consisting of one or two methylene groups;

or R¹-represents a group of formula (B):

wherein NR^{4b}R^{5b} represents an N-linked heterocyclyl, heterocyclyl-X^b-aryl, heterocyclyl-X^b-heteroaryl, -heterocyclyl-X^b-heterocyclyl, -heteroaryl, heteroaryl-X^b-aryl, -heteroaryl-X^b-heteroaryl-or -heteroaryl-X^b-heterocyclyl group; wherein said arvl. heteroarvl and heterocyclyl groups of NR4bR5b may be optionally substituted by one or more substituents which may be the same or different, and which are selected from the group consisting of halogen, hydroxy, cyano, nitro, oxo, haloC₁₋₆ alkyl, polyhaloC₁₋₆ alkyl, haloC₁₋₆ alkoxy, polyhaloC₁₋₆ alkoxy, C₁₋₆ alkyl, C₁₋₆ alkoxy, arylC₁₋₆ alkoxy, C₁₋₆ alkylthio, C₁₋₆ alkoxyC₁₋₆ alkyl, C₃₋₇-cycloalkylC₁₋₆-alkoxy, C₁₋₆-alkanoyl, C₁₋₆-alkoxycarbonyl, arylC₁₋₆-alkyl, heteroarylC_{1.6} alkyl, C_{1.6} alkylsulfonyl, C_{1.6} alkylsulfinyl, C_{1.6} alkylsulfonyloxy, C_{1.6} alkylsulfonylC₁₋₆-alkyl, arylsulfonyl, arylsulfonyloxy, arylsulfonylC₁₋₆-alkyl, aryloxy, C₁₋₆ alkylsulfonamidoC₁₋₆ alkyl, C₁₋₆ alkylamidoC₁₋₆ alkyl, arylsulfonamido, arylaminosulfonyl, arylsulfonamidoC₁₋₆ alkyl, arylcarboxamidoC₁₋₆ alkyl, aroylC₁₋₆ alkyl, arylC₁₋₆-alkanoyl, or a group -NR^{15b}R^{16b}, -CONR^{15b}R^{16b}, -NR^{15b}COR^{16b}, -NR^{15b}SO₂R^{16b} or SO₂NR^{15b}R^{16b}, wherein R^{15b} and R^{16b} independently represent hydrogen or C_{1.6} alkyl;

X^b represents a bond, CO, NHCO or CONH;

or R¹ represents a group of formula (C):

(C)

wherein R⁴⁶-represents C₁₋₆-alkyl, OH, aryl or heterocyclyl, wherein said aryl and heterocyclyl groups may be optionally substituted by halogen, C₁₋₆-alkyl, C₁₋₆ alkoxy, cyano, amino, oxo, trifluoromethyl or an aryl group;

or R¹ represents a group of formula (D):

$$R^{4d}$$

wherein R^{4d} represents aryl or heteroaryl wherein said aryl and heteroaryl groups may be optionally substituted by one or more substituents which may be the same or different, and which are selected from the group consisting of halogen, C₁₋₆ alkyl, C₁₋₆ alkoxy, cyano, amino or trifluoromethyl;

X^d represents a bond or NHCO, such that when X^d represents NHCO, the group R^{4d}-X^d is attached at the 3-position of the pyrrolidinyl ring;

or R¹-represents a group of formula –CO-E, wherein E represents a group of formula E^a, E^b or E^c:

Ye represents -C(HR9e) or -C(=O);

 R^{4e} , R^{5e} , R^{8e} and R^{9e} independently represent hydrogen, C_{1-6} alkyl, aryl, heteroaryl, C_{1-6} alkyl aryl or C_{1-6} alkyl heteroaryl;

 R^{6e} and R^{7e} independently represent hydrogen, C_{1-6} alkyl, aryl, heteroaryl, $-C_{1-6}$ alkyl aryl, $-C_{1-6}$ alkyl heteroaryl or R^{6e} and R^{7e} together with the carbon atoms to which they are attached may form a benzene ring;

is a single or double bond;

wherein said aryl or heteroaryl groups of R^{4e} , R^{5e} , R^{6e} , R^{7e} , R^{8e} and R^{9e} may be optionally substituted by one or more substituents which may be the same or different, and which are selected from the group consisting of C_{1-6} alkyl, CF_{3} , C_{1-6} alkoxy, halogen, cyano, sulfonamide or C_{1-6} alkylsulfonyl;

or R¹ represents a group of formula (F):

$$(R^{4f})_t$$
 N
 (F)

wherein t is 0, 1 or 2;

u is 1 or 2;

R^{4f} represents C₁₋₆ alkyl or when t represents 2, said R^{4f} groups may instead form a bridging group consisting of one or two methylene groups;

 R^{5f} represents $-C_{1-6}$ alkyl, $-C_{1-6}$ alkyl C_{1-6} alkoxy, $-C_{3-8}$ cycloalkyl, aryl, heterocyclyl, heteroaryl, $-C_{1-6}$ alkyl-aryl, $-C_{1-6}$ alkyl- C_{3-8} cycloalkyl, $-C_{1-6}$ alkyl-heteroaryl, $-C_{1-6}$ alkyl-heteroaryl, aryl-heteroaryl, -aryl-heterocyclyl, -heteroaryl-aryl, -heteroaryl-heterocyclyl, -heterocyclyl-aryl, -heterocyclyl-heterocyclyl;

wherein R^{5f} may be optionally substituted by one or more substituents which may be the same or different, and which are selected from the group consisting of halogen, hydroxy, cyano, nitro, oxo, haloC₁₋₆ alkyl, polyhaloC₁₋₆ alkyl, haloC₁₋₆ alkoxy, polyhaloC₁₋₆ alkoxy, C₁₋₆ alkyl, C₁₋₆ alkoxy, C₁₋₆ alkylthio, C₁₋₆ alkoxyC₁₋₆ alkyl, C₃₋₇ cycloalkylC₁₋₆ alkoxy, C₁₋₆ alkanoyl, C₁₋₆ alkoxycarbonyl, C₁₋₆ alkylsulfonyl, C₁₋₆ alkylsulfonyl, C₁₋₆ alkylsulfonyloxy, C₁₋₆ alkylsulfonylC₁₋₆ alkyl, C₁₋₆ alkylsulfonyloxy, arylsulfonyl, arylsulfonamidoC₁₋₆ alkyl, C₁₋₆ alkylamidoC₁₋₆ alkyl, arylsulfonyl, arylsulfonyloxy, aryloxy, arylsulfonamido, arylcarboxamido, aroyl, or a group NR^{15f}R^{16f}, -CONR^{15f}R^{16f}, -NR^{15f}COR^{16f}, -NR^{15f}SO₂R^{16f} or -SO₂NR^{15f}R^{16f}, wherein R^{15f} and R^{16f} independently represent hydrogen or C₁₋₆ alkyl or together form a heterocyclic ring;

Z^f represents CO or SO₂;

 R^2 represents halogen, C_{1-6} alkyl, C_{1-6} alkoxy, cyano, amino or trifluoromethyl; n is 0, 1 or 2;

R³ represents -(CH₂)_q-NR¹¹R¹² or a group of formula (i):

$$(CH_2)_f$$
 $(R^{14})_k$ (I)

wherein q is 2, 3 or 4;

 R^{11} and R^{12} independently represent C_{1-6} alkyl or together with the nitrogen atom to which they are attached represent an N-linked heterocyclic group selected from pyrrolidine, piperidine and homopiperidine optionally substituted by one or two R^{17} groups;

 R^{13} represents C_{1-6} alkyl, C_{3-6} cycloalkyl or $-C_{1-4}$ alkyl- C_{3-6} cycloalkyl; R^{14} and R^{17} independently represents halogen, C_{1-6} alkyl, halo C_{1-6} alkyl, OH, di C_{1-6} alkylamino or C_{1-6} alkoxy;

f and k independently represent 0, 1 or 2;

g is 0, 1 or 2 and h is 0, 1, 2 or 3, such that g and h cannot both be 0; or solvates thereof.

2. (Currently Amended) A compound according to claim 1 which is a compound selected from the group consisting of

E2

E3

$$-$$

E4

E5

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

E7

E8

E9

$$CI \longrightarrow N$$

E11

E12

E13

$$\mathsf{MeO} \longrightarrow \mathsf{N} \longrightarrow \mathsf{N} \longrightarrow \mathsf{N}$$

E14

$$N =$$

E16

E17

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\$$

E18

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

E20

E21

$$F_3C$$

E22

$$N = - \sqrt{\frac{N}{N}} \sqrt{\frac{N}{N}}$$

E23

E25

$$H_3C$$

E26

E27

$$H_3C$$

E29

$$\begin{array}{c} Ph \\ Ph \end{array}$$

E30

$$N = N$$

E31

$$N =$$
 $N =$
 $N =$

$$\frac{1}{\sqrt{2}}$$

E33

$$H_3C$$
 N
 N

E34

$$CF_3$$

E35

$$H_3C$$
 CH_3 O O N O

$$\begin{array}{c|c}
 & O \\
 & O \\$$

E37

$$F_3C$$

E38

E39

E40

E42

$$H_3C$$
 O
 N
 O
 N
 O

E43

$$N = 0$$

E44

E46

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & \\ & & \\ &$$

E47

$$F_3C$$

E48

$$F_3C$$

$$F_3C$$

E50

E51

E52

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

$$N = -$$
 $N = -$
 N

E54

E55

$$rac{1}{\sqrt{\frac{1}{N}}}$$

E56

E58

E59

E60

E62

E63

E64

$$CF_3$$
 O
 O
 O

E66

E67

E68

$$MeSO_2 \xrightarrow{S} \overset{O}{CI} \overset{O}{N} \overset{O}{N}$$

E70

E71

E72

E74

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E79

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E81

$$0 \longrightarrow H$$

E82

E83

E85

E86

$$CF_3$$
 O
 N
 O
 N

E90

E91

E93

E94

E95

E97

E98

E101

E102

E103

E104

(1S,4S)-2-[4-(3-Piperidin-1-ylpropoxy)benzoyl]-2,5-diaza-bicyclo[2.2.1]heptane dihydrochloride

E105

E106

E107

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\$$

E109

E110

E111

E113

E114

E115

$$O$$
 N
 O
 F_3C

E117

$$CI$$
 O
 N
 O
 F_3C

E118

$$\bigcap_{N} \bigcap_{N} \bigcap_{N$$

E119

$$F_3C$$

E121

E122

$$O$$
 N
 O
 F_3C

E123

E124

or a pharmaceutically acceptable salt thereof.

- 3. (Currently Amended) A pharmaceutical composition which comprises the compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier or excipient.
- 4.-6. (Cancelled)
- 7. (Currently Amended) A method of treatment of neurological diseases

 Alzheimer's disease which comprises administering to a host in need thereof an effective amount of a compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof.
- 8. (Cancelled).